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PATENT

Practitioner's Dkt. No.: 8379.006

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicants:** Steven A. Root and Michael R. Root

**Serial No.:** 10/667,108

**Group Art Unit: 2857**  
**(Conf. No. 8548)**

**Filed:** 09/19/2003

**Examiner:** D. McElheny, Jr.

**For:** INTERACTIVE WEATHER ADVISORY SYSTEM

**Mail Stop Fee Amendment**  
**Commissioner for Patents**  
**Alexandria, VA 22313-1450**

**TERMINAL DISCLAIMER UNDER 37 C.F.R. § 1.321(b)**

Sir:

I, Marc A. Brockhaus, having a mailing address of Dunlap, Codding & Rogers, P.C., P.O. Box 16370, Oklahoma City, OK 73113, in the County of Oklahoma and the State of Oklahoma, represents that he is agent of record for Petitioner/Assignee entity, WeatherBank, Inc. Marc A. Brockhaus is authorized to sign on behalf of Petitioner/Assignee.

WeatherBank, Inc., owns one hundred percent (100%) of the right, title and interest in and to **U.S. Patent No. 6,505,123**, issued on January 7, 2003, assignment recorded on July 24, 2000, Reel / Frame 11121/227-229.

06/28/2004 DEMMANU1 00000043 041700 10667108

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WeatherBank, Inc., owns one hundred percent (100%) of the right, title and interest in and to **U.S. Patent No. 6,754,585**, issued on June 22, 2004, assignment recorded on July 24, 2000, Reel / Frame 11121/227-229.

WeatherBank, Inc., owns one hundred percent (100%) of the right, title and interest in and to **U.S. Serial No. 10/355,971**, filed on January 31, 2003, assignment recorded on July 24, 2000, Reel / Frame 11121/227-229.

WeatherBank, Inc., owns one hundred percent (100%) of the right, title and interest in and to the above-identified patent application, **U.S. Serial No. 10/667,108**, filed September 19, 2003, assignment recorded on July 24, 2000, on Reel/Frames 11121/227-229.

The assignment documents relating to **U.S. Patent No. 6,505,123**, **U.S. Patent No. 6,754,585**, **U.S. Serial No. 10/355,971**, and the above-identified application, **U.S. Serial No. 10/667,108**, have been reviewed and certified by Petitioner/Assignee and, to the best of Petitioner/Assignee's knowledge and belief, title is in the Petitioner/Assignee seeking to take this action.

Your petitioner hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the above-identified application, which would extend beyond the expiration date of the full statutory term defined in 35 U. S. C. §§ 154-156 and 173, and of the term as presently shortened by any terminal disclaimer of **U.S. Patent No. 6,505,123**, **U.S. Patent No. 6,754,585**.

**Patent No. 6,754,585, and U.S. Serial No. 10/355,971**, as presently shortened by any terminal disclaimers filed prior to the grants of any patents granted on pending applications.

Petitioner further agrees that any patent so granted on the above-identified application shall be enforceable only for and during such period that the legal title to said patent shall be the same as the legal title to **U. S. Patent No. 6,505,123, U.S. Patent No. 6,754,585, and U.S. Serial No. 10/355,971**.

This agreement is to run with any patent granted on the above-identified application and is to be binding upon the grantee, its successors or assigns.

In making the above disclaimer, petitioner does not disclaim any terminal part of any patent granted on the above-identified application prior to the expiration date of the earlier of the term defined in 35 U.S.C. §§ 154-156 and 173, and of the term as presently shortened by any terminal disclaimer of said **U.S. Patent No. 6,505,123, U.S. Patent No. 6,754,585, and U.S. Serial No. 10/355,971** and of the terms of any patents granted on applications, as shortened by any terminal disclaimers filed prior to the patent grants, in the event that said **U.S. Patent No. 6,505,123, U.S. Patent No. 6,754,585, and U.S. Serial No. 10/355,971** later: (1) expire for failure to pay a maintenance fee; (2) are held unenforceable or are found invalid by a court of competent jurisdiction; (3) are statutorily disclaimed in whole or terminally disclaimed

under 37 C.F.R. § 1.321; (4) have all claims canceled by a reexamination certificate; (5) are reissued; or (6) are otherwise not deemed to provide the rights conveyed by 35 U.S.C. §§ 154-156 and 173 prior to the expiration of the full statutory term(s) as presently shortened by any terminal disclaimer(s), except for the separation of legal title stated above.

WEATHERBANK, INC.

6-23-2004

(Date)

By: Marc Brockhaus  
Marc A. Brockhaus, Reg. No. 40,923  
DUNLAP, CODDING & ROGERS, P.C.  
P.O. Box 16370  
Oklahoma City, OK 73113  
Telephone: (405) 607-8600  
Telefax: (405) 607-8686



**CERTIFICATE UNDER 37 CFR 3.73(b)**

Applicants: Steven A. Root and Michael R. Root

Application No.: 10/667,108 Filed: September 19, 2003

For: INTERACTIVE WEATHER ADVISORY SYSTEM

WeatherBank, Inc., a Corporation  
(Name of Assignee) (Type of Assignee)

certifies that it is the Assignee of the entire right, title and interest in the patent application identified above by virtue of either:

A. [X] An assignment from the inventor(s) of the patent application identified above. The document was recorded in the Patent and Trademark Office on July 24, 2000 at Reel/Frames 11121/227-229, or, which a copy thereof is attached.

OR

B. [ ] A chain of title from the inventor(s) of the patent application identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

[ ] Additional documents in the chain of title are listed on a supplemental sheet.

[ ] Copies of assignments or other documents in the chain of title are attached.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 6-23-2004

Name: Marc A. Brockhaus

Title Authorized Agent of Record, Reg. No. 40,923

Signature: Marc A. Brockhaus

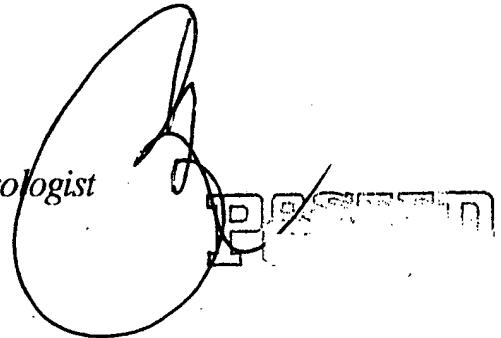
*WeatherBank, Incorporated*

WeatherBrief Wireless Application Protocol (WAP)

An Innovative Weather Advisory System  
Utilizing High Technology Personal Telecommunications  
And  
Proprietary Meteorological Applications

*Proprietary*

*Steven A. Root  
Certified Consulting Meteorologist  
President & CEO*



**EXHIBIT**

A

WeatherBank, Incorporated

WeatherBrief Wireless Application Protocol (WAP)

An Innovative Weather Advisory System  
Utilizing High Technology Personal Telecommunications  
And  
Proprietary Meteorological Applications

THIS MEMORANDUM CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION. IT REMAINS THE SOLE PROPERTY OF WEATHERBANK, INCORPORATED AND MUST BE RETURNED UPON REQUEST. ANY REPRODUCTION OR REDISTRIBUTION IS PROHIBITED WITHOUT THE PRIOR, WRITTEN CONSENT OF WEATHERBANK, INCORPORATED.

THE TERM "WEATHERBRIEF" IS A TRADEMARK OF WEATHERBANK, INCORPORATED, EDMOND, OKLAHOMA.

## THE PROBLEM

During recent years, the demand for detailed weather information has risen sharply. Personal computers and communication devices have artificially stimulated the need for more detailed information because of their power to gather, manipulate, transmit and receive data. As a result, specialization and value-added services are in great demand. End users no longer desire to gather and manipulate raw data. Time constraints and the demand for convenient (a "fast foods" approach) acquisition of information has created a tremendous opportunity.

Nowhere is this condition more apparent than with weather services across North America. Radio and television broadcasters have recognized the demand for accurate and timely weather information and have increased the number of on-air weather segments as a means for increasing their market ranking. The public realizes the value of reliable weather information because its use is so widespread. Virtually all facets of business and personal activities are continually influenced by the weather.

In this country, like most countries, the National Weather Service has the responsibility of providing weather products to the general public. However, due to the large volume of individually requested weather needs and the time required to process each request, publicly available weather information is only updated periodically throughout the day (and usually not at key decision making times). Even worse, the weather product is based upon regional or national weather systems that may not apply to a particular location (the corner of Main and Elm Streets), where various end user activities are underway.

By way of example, weather warnings are broadcast by radio stations across the United States. These warnings identify certain weather impacts within a specified area. In most cases, the warning area includes one or more counties, covering dozens to hundreds of square miles. Most often, these threats (such as Severe Thunderstorms, Tornadoes, etc.), only impact a very small zone within the warning area. These threats also move rapidly. As impacts approach specific zones, they are in fact moving away from other zones, inside the total warning area. Essentially, the existing weather warning system provides the user insufficient information to adequately evaluate his risk. Furthermore, if the risk is imminent, it can't and does not address the specific needs of users near or at the risk. Thus, by default, the user is placed "on alert" unnecessarily when risk may be moving away from his location.

Another common example further clarifies the problem. A family, excited to attend the championship softball game this upcoming weekend, closely monitors the local weather forecast. All week long the forecast has advised fair to partly cloudy weather for game day. Early on game day, the forecast changes to partly cloudy, with a thirty percent chance for late afternoon showers. The family decides to attend the game, believing that the chances for rain are below their risk level. Unknown to the family at midday, a cluster of showers are intensifying, and will place dangerous lightning over the game field. While not a complete wash out, the participants and the spectators are exposed to risk. If later asked, it's likely the family members didn't hear or remember the weather forecast. They also failed to link their limited knowledge of the weather event to their own needs and risk exposure. As a result, they simply failed to act to avoid risk and loss. They didn't monitor changing events. Most likely they had no ability to monitor developing risk at the game. Clearly, the user is forced to interpret stale, limited information, as applied to his specific application. Often times this interpretation was made erroneously.

## THE OPPORTUNITY

In mid-1999, there were more than 350 million cellular users worldwide, with nearly fifty percent of the wireless devices using digital standards. Some analysts suggest that cellular subscriber numbers will reach one billion by 2003/4. The current cellular subscriber base well exceeds the number of internet users worldwide, which now exceeds 200 million users. Recent research indicates that over forty percent of the work force will be location-independent by 2001.

Recently, a new digital technology has been developed for wireless communications. The Wireless Application Protocol (WAP) is an open, global specification that empowers mobile users with wireless devices to easily access and interact with information and data services. The WAP Forum, an association that is composed of more than 90 members (including AT&T, Ericsson, IBM, Motorola, Nokia, Nortel, QualComm and others), developed the standard.

Just as voice traffic is migrating from the phone in your house to the phone in your pocket, we are now seeing the first signs that the data world will follow a similar path, but this time it will be from the desktop to the handheld. Imagine trading stock or checking email messages from your mobile phone or even conducting e-Commerce transactions directly from your handset. WAP is revolutionizing the way we interact with information services.

One of the initial benefits resulting from WAP, will be the ability to reliably define a handset's location. Similar to Global Positioning (GPS), cellular users will not be required to know their location, since the WAP system will be able to triangulate within the cell system. This is extremely significant since heretofore, cellular users requesting 911 support in unfamiliar surroundings, had no way to identify their location.

While current services are simply rebroadcasting National Weather Services weather products to digital handsets and pagers, identical problems defined above remain. No attempt to gain specificity has been made. No attempt has been made to customized specific weather information based upon a user's physical location in relationship to the weather threat. And no attempt has been made to customize supplied weather information to best support the user's weather related activity.

Clearly, there is an opportunity to provide a valuable, new service. Now it is possible to provide superior weather risk services to WAP-enabled users, well beyond the current support level. To provide services, a system requires these elements:

1. The ability to reliably determine the geographical position of the handset (and hence, the user) in real-time. WAP satisfies this goal.
2. The ability to determine current and projected weather events on a localized at scale in real-time. WeatherBank can accomplish this task.
3. The ability through post processing on a real-time basis, compare all current and future risk events occupying or those that will occupy to the same geographic user location(s), if any.
4. The ability to provide immediate value-added weather information, consisting of but not limited to, forecasts and weather alerts, combined with advisories and or other custom loss prevention and risk mitigation advice in order to afford users ample time to implement preventive measures.

These are the abilities of the WeatherBrief Wireless Application Protocol (WAP) System.

## THE PRODUCT:

Imagine having the ability to obtain adverse weather advisories in real-time on the job... up-to-the-minute information, tailor-made just for that job site...

Imagine having the ability to go to a youth soccer match, having the reassurance of knowing when to leave just before dangerous lightning arrives...

Imagine being on the farm, in an isolated 40-acre section, wanting to know the risk of 28°F or colder temperatures overnight, prior to spraying a temperature-sensitive chemical application...

Imagine receiving customized, color graphic radar displays for the North Fork of Lake Texoma, alerting of possible risk to your boating activities...

All of these capabilities are possible by uniquely combining individual and existing technologies. All services will garner the following significant benefits over existing technologies:

1. The ability to receive updates instantly
2. The ability to obtain weather services specific to unique location
3. The ability to obtain weather services tailored to specific weather sensitive activities
4. The ability to change or modify a weather risk profile

All capabilities will be specific to the needs and risk levels of each individual handset (user). Services will define the risk or weather event, and provide easy-to-understand advisories or preventative measures, such that losses and risks can be reduced.

Repeated communication about impending hazards will provide the element now missing from existing services. This will create a "Safety Attitude", reducing accident frequency, preventing injury and loss of life, and reduces property losses and liabilities.

## THE CHAIN of INFORMATION CUSTODY:

1. Wireless Weather Risk Profile: User defines his risk exposures to certain weather events or conditions. This process establishes his profile (e.g.: wind speeds > 40mph, lightning strikes with 3-miles of his location, 75% or greater cloud cover, etc.).
  - verbally updated to wireless service provider customer service technicians
  - user maintained via interactive web site
  - user maintained via interactive wireless handset
2. Activate Weather Risk Monitoring: User activates program by requesting service and engagement of his Risk Profile. This process can be as easy as turning on his wireless device, which automatically upload's his risk profile.
  - activation identifies his location ("I am 405-359-0773, I am located at 35.651864 ° North, 97.466573 ° West")
  - once activation identifies location, it is passed into WeatherBank Network Control Facility for risk assessment
3. WeatherBank Monitors Risk Profile: In realtime, WeatherBank monitors all users profiles, using:
  - state-of-the-art storm tracking and movement prediction technology
  - highly advanced storm prediction services
  - relational database services comparing imminent risk weather events, having a geographic distribution, to specific client locations (if any) occupying that same geographic distribution
4. Risk Trigger Reached: Deliver easy to understand, text and high resolution color graphic (as technology permits) weather advisories, specific to the needs and loss prevention concerns of each user, via WAP enable wireless handsets

inetz

aaron suzuki president

em aaron@inetz.com  
ph 801.415.2500  
fx 801.415.2501  
adr 56 east broadway  
suite 300  
slc, utah 84111

internet www.inetz.com

Also  
Deeled their part  
of the  
Build

-Dave Pope

- Michael Adisper

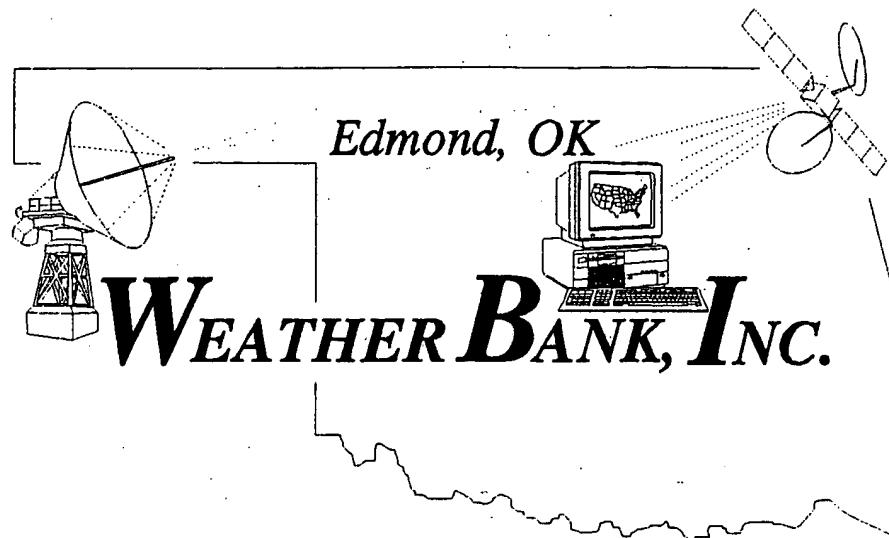
Silicon Stem Cell

W&P - New Patent Ideas

Dave Pope - Suggested user profiles  
be WEB BASED — AS  
allow users to define —  
(No Customized Service Hassles!)

EXHIBIT

B



### FACSIMILE TRANSMISSION

To: Mr. David Pope, Ph.D.  
Senior Scientist  
TLR Consultants, Inc.  
P.O. Box 58282  
Salt Lake City, Utah 84158  
FAX #: 801-582-8232

From: Steven A. Root, CCM  
President, WeatherBank, Inc.

Voice: (405) 359-0773  
Fax: (405) 341-0115

RE: 1. Meeting in SLC on WAP/new project  
2. ?? on Y2K Bugs with WXB-PLUS

Hi Dave -

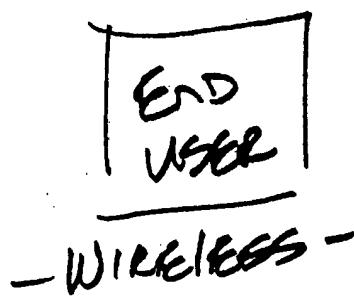
Well... time for another Kennecott audit. I'll be coming into SLC later this week, so I'll call you to set up a time when we can meet. I'd like to here your thoughts on WAP - what is it?... and how can I use it on a new weather project I'm working on.

Also, I'm concerned about Y2K issues on WeatherBrief Plus... so we can chat about that too.

Best Regards, SA: Root  
Total Number of pages sent: 1

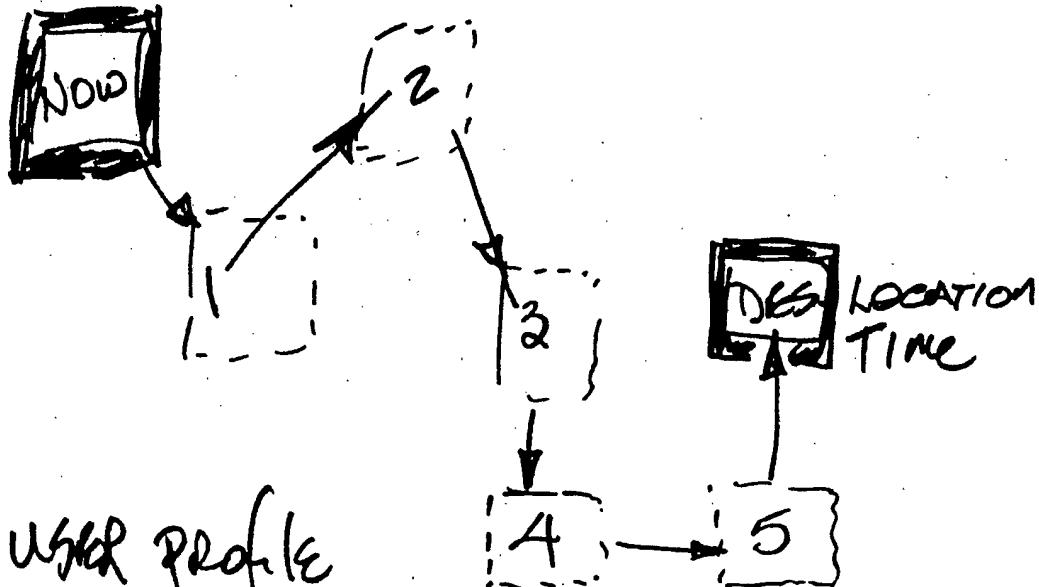
EXHIBIT

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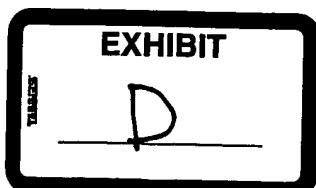


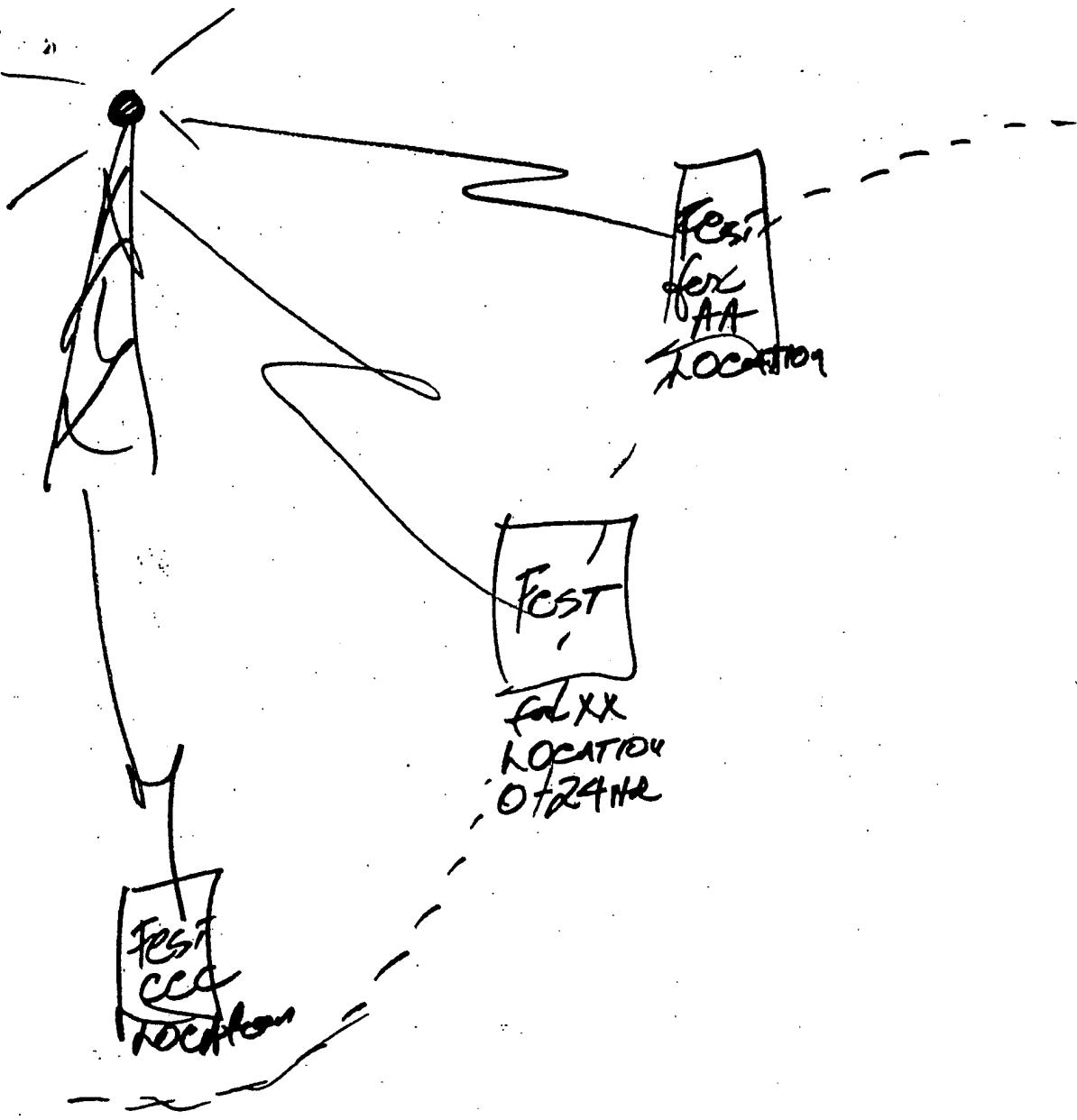
Affect of DOMINANT IMPACT

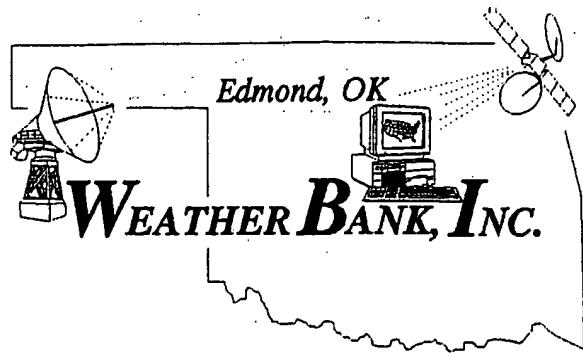
- 1) Moving Map - Current IMMEDIATE RISKS
- 2) IMMEDIATE DATA user Scalable (Hours)
- 3) All EVENTS - Single Events



- 1) User Profile
- 2) interactive
- 3) Triggers on Current → <sup>Current Any</sup> TIME
- 4) TRIGGERS: High Confidence Level  
They will occur xxx in time







FACSIMILE TRANSMISSION

To:	Note to File:
From:	Steven A. Root, CCM President, C.E.O. WeatherBank, Inc.
Contact:	1015 Waterwood Parkway Suite J, Edmond, OK USA 73034 Fax: (405) 341-0115 Voice: (405) 359-0773
RE:	Patent #: 4,218,755

Infringement on patent highly unlikely;

abandon efforts and move on.

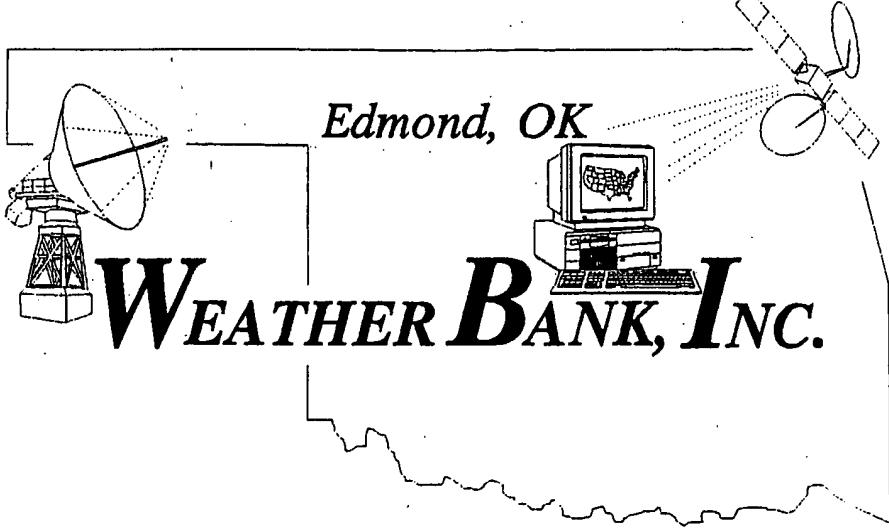
*SAR told MHL  
abandon efforts to search  
for new/existing other  
Weather Weather  
applications*

Best Regards, SA Root

Total Number of pages sent:

EXHIBIT

E



## FACSIMILE TRANSMISSION

To: Mr. David Pope, Ph.D.  
Senior Scientist  
TLR Consultants, Inc.  
P.O. Box 58282  
Salt Lake City, Utah 84158  
TEL #: 801-582-8280  
FAX #: 801-582-8232

From: Steven A. Root, CCM  
President, WeatherBank, Inc.

Voice: (405) 359-0773  
Fax: (405) 341-0115

RE: Y2K Bugs with WXB-PLUS

*Not - w/ Date  
Call first*

*5:30pm - H/c  
6:00pm - Meier @  
Hotel - Date  
w/ PICK UP*

*Yek - Ok - EST w/  
PC By Resetting Clock  
- Service -  
- Date log issue?*

*WSI - WAP - CELL SERVICES MAY  
BE GEOF BASED - CELL CO. S  
WILL HAVE DATE ON LOCATION -  
- Total use in WSI WAP proposal  
Date will work if its*

Best Regards, SA-Root

Total Number of pages sent: